



# THE RARA RAG

Newsletter of The Rochester Amateur Radio Association, Inc.  
Founded in 1931

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## SATELLITE COMMUNICATIONS WITH MINIMAL EQUIPMENT ONLINE ONLY

SCOTT THEIS, W2LW, RARA VICE PRESIDENT

Sorry to say ... but online only again this month. At some point we will be back to combination meetings.

With the number of new satellites being launched, there is plenty of opportunity to make DX contacts via a satellite. We have a treat this month for our presentation with Clint Bradford, K6LCS, presenting from California.

If you would like a sneak-peek at some of his offerings, Clint has created a website at [work-sat.com](http://work-sat.com) for all to use. The website is a one-stop source for all the citations, equipment recommendations, and software suggestions made in the presentation.



Clint has been a ham since 1994 and found his niche in the hobby: working amateur satellites with minimal equipment and sharing his extensive knowledge! He has served as a liaison between NASA, the ARISS team, and schools coordinating amateur radio contacts between the International Space Station and students (and also orchestrated a wildly successful ARISS contact). He assures me that "audiences are never bored".

Professionally, Clint was sales manager for ADI / Premier Communications / Pryme, worked for a Motorola commercial two-way dealer for a couple of years, and for Ham Radio Outlet a couple more.

Please join us on Wednesday, February 2<sup>nd</sup>, 2022, 7:00PM online by registering at:  
<https://attendee.gotowebinar.com/register/3378871120874338059>

**DO NOT come in person, you will be alone in the parking lot!**

# RARA



YouTube

K2JD

N2EH

W2EOC

# BOARDZ BUZZ

TIM BARRETT, K9VB, RARA PRESIDENT

## Thanks!

First, we are an organization of volunteers, so I would like to thank all those who contribute to the club's activities, whether it is as a board member, an activity coordinator or as an individual. We would not be the successful club that we are without your contributions, so thank you!

## Membership

The Rag is the newsletter of RARA, the Rochester Amateur Radio Association and goes out to nearly 5,000 radio amateurs and radio enthusiasts in the Rochester area and outside. If you are reading this it is reasonable to assume you have an interest in radio. However less than 10% of the circulation are currently members of the club. You do not have to be a member to receive the Rag but if you enjoy reading it, please consider joining RARA. It is not just the membership dues that are important to us (though they certainly help) but the more members we have, the stronger we are as a club.

Maybe you believe you are a member, but have you checked your status recently? Annual membership lapsed on Sep 30<sup>th</sup> (except for Life members) and there are still around two hundred members who have not renewed for 2021-2022. If you are not sure of your status, [check your membership here](#) and please renew if needed!

## Our Monthly Meetings

Covid continues to bug us, having re-started in-person meetings back in October we are now back to on-line only, though reviewing that on a month-by-month basis. I'm sure I'm not the only one who misses the camaraderie of the meetings as well as the added benefits such as the raffle, coffee and donuts!

We will be back to in-person as soon as we can, and we will continue to be on-line so that our not-so-local attendees can still join us. To that end the board has invested in improved audio equipment, and we also have the assistance of two audio / video managers, Joe Vincenzo, AD2DB and Scott Czeck, KC1GHT. Thank you both for stepping forward!

## Winterfest

Perhaps we were over optimistic that we would be able to hold our usual Winterfest in a Mendon Ponds cabin this February. Reluctantly we have felt it in the best interests of the club to cancel this event. The summer picnic is still on!

## Other Club Activities

Public Service Events are taking a bit of a break until the weather warms up, but our Elmer Sessions are continuing and expertly run by Richard and Sue Bishopp, if you are new to the hobby or just have some questions do consider joining the meetings!

We are still looking for somebody to help organize our Academy Sessions, if you

think you can help, please contact me at the email address below.

## It's Your Club!

Finally, it's your club – let us know how we are doing and if you have suggestions let us hear them! You can always contact me or another board member via email.

Stay warm and stay safe!

Tim Barrett, K9VB, [president@rochesterham.org](mailto:president@rochesterham.org)

## CALENDAR OF EVENTS

**WEDNESDAY FEBRUARY 2, 2022** - General Meeting Online Only

7:00 PM - AT THIS LINK

<https://attendee.gotowebinar.com/register/3378871120874338059>

**THURSDAY FEBRUARY 3, 2022** - RARA Board of Directors Meeting

6:30PM ON LINE

Email request for link to [secretary@rochesterham.org](mailto:secretary@rochesterham.org)

**SATURDAY FEBRUARY 5, 2022** - Elmers Corner

10:00AM ON LINE

[https://us02web.zoom.us/j/83484674667?](https://us02web.zoom.us/j/83484674667?pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09)  
[pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09](https://us02web.zoom.us/j/83484674667?pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09)

**SATURDAY FEBRUARY 19, 2022** - VE TESTING

10:00AM Rochester Institute of Technology, Bldg 16  
Schmitt Interfaith Center, Skalny Room

# Membership – Time to Renew!

- RAG Circulation ~5,000
- RARA Membership ~400
- RARA is the 6<sup>th</sup> largest ARRL affiliated club
- **Let's make it the largest!!**
- Renew or join [here](#)
- If you have a problem renewing, please email us at:  
[membership@rochesterham.org](mailto:membership@rochesterham.org)



**Don't Delay, Renew Today!**



## EDUCATION

Karl Heinz Kremer, K5KHK, Education Coordinator

### RARA LICENSE COURSES

Karl Heinz Kremer, K5KHK, License Class Coordinator

The Technician and General license class have started.

The "Amateur Extra Without the Math Anxiety" class is on the calendar! John Viggiano – NV2K – will teach this class on four Monday evening (6pm or 6:30pm, the exact time will be determined later) on Zoom, starting on 2/21/2022. This will be specifically about the math part of the Extra curriculum. If you are planning on taking the Amateur Extra license test anytime soon, this will be an excellent addition to your test prep.

Classes are free to RARA members, and if you would like to sign up, please send an email to [education@rochesterham.org](mailto:education@rochesterham.org). License manuals are available for \$25 – even if you are not signed up for one of our classes. If you are interested in a manual, please send an email to the address above. The Technician test will change in July of 2022, with that, the license manual will change as well. We are running low on Technician license manuals, once we are out, you will have to pay the full price and get your own.

### RARA ELMERS CORNER

Suzanne Bishopp, W2SUZ  
Rich Bishopp, KD2UBJ  
Elmers Corner Coordinators

Our last Elmers corner was well attended by many experienced and new members. The NanoVNA was the primary topic of conversation but we also talked

about digital modes a bit and shared experience with antenna configurations. I think everyone had something to share. Hopefully we will see you all on February 5<sup>th</sup> at 10 AM for the next Elmers Corner. Use the link below to join. Grab a cup of coffee, and check in.

Bring a question to ask about ham radio or share nifty tips and tricks, like finding the noise in your shack or portable station and using a noise blander to combat that noise.

You can submit questions early if you would like, this way we can give our Elmers a chance to prepare. Submit those early questions to:  
[elmerscorner@rochesterham.org](mailto:elmerscorner@rochesterham.org).

Elmer's Corner is for ALL hams! Beginners and experienced hams.

Even If you can't make it on the first Saturday of the month to the zoom meeting, let us know if you have a specific topic you would like to learn more about. We will do our best to find the right Elmer to present on the topic and get the answer to your questions. We record each meeting, so you can watch it later when you are available.

Thanks, and see you at the January Elmer's Corner!

### **February ELMERS CORNER**

Saturday, February 5th from 10AM – 12PM

Join Zoom Meeting

[https://us02web.zoom.us/j/83484674667?](https://us02web.zoom.us/j/83484674667?pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09)

[pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09](https://us02web.zoom.us/j/83484674667?pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09)

Meeting ID: 834 8467 4667

Passcode: 786545

### RARA ACADEMY WORKSHOPS

## HELP WANTED

We are still looking for somebody to coordinate our RARA Academy sessions. If you are a happy participant of any previous sessions (either as a presenter, or as an attendee), and you want these sessions to continue, please consider volunteering your time. If you want to learn more about the role, please get in touch with me: [education@rochesterham.org](mailto:education@rochesterham.org)

If you have an idea for a potential Academy session, please let me know as well, and I will try to find a presenter.



## MORSE CODE TRAINING

**DAVE WILSON, WA2HOY, RXCWG COORDINATOR**

The RXCW Group assists Hams wanting to learn Morse Code or to develop their CW skills.

### BEGINNERS MORSE CODE ZOOM CLASSES

Peter Fournia, W2SKY, hosts Morse Code classes on Thursday evenings 7pm. No experience required.

Join the group at any session.

Register at: [pfournia@gmail.com](mailto:pfournia@gmail.com)

### MORSE PRACTICE FOR ALL LEVELS ON ZOOM

Tim Brown, WB2PAY, hosts code practice for all levels on Wednesday evenings at 7pm.

Register at: [tjbrown@rochester.rr.com](mailto:tjbrown@rochester.rr.com)

### MORSE PRACTICE ON AIR

Tim Brown, WB2PAY, hosts on air practice on Tuesdays at 2PM on 6M at 50.250MHz.

W1AW - <http://www.arrl.org/w1aw-operating-schedule>

Time	Mon	Tue	Wed	Thu	Fri
9 AM		Fast	Slow	Fast	Slow
4 PM	Fast	Slow	Fast	Slow	Fast
7 PM	Slow	Fast	Slow	Fast	Slow
10 PM	Fast	Slow	Fast	Slow	Fast

SLOW - 5, 7 1/2, 10, 13 and 15 wpm

FAST - 35, 30, 25, 20, 15, 13 and 10 wpm

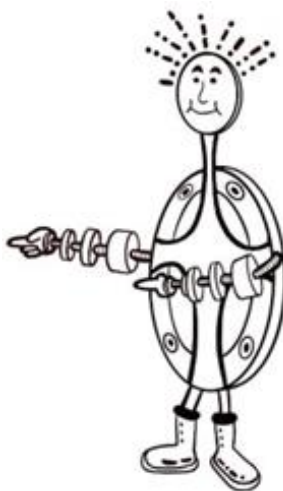
FREQ(MHz) - 1.8025, 3.5815, 7.0475, 14.0475, 18.0975, 21.0675, 28.0675, 50.350, 147.555

W1AW Code Practice MP3 Files: <http://www.arrl.org/code-practice-files>

To set up a cw sked, contact  
Peter at [pfournia@gmail.com](mailto:pfournia@gmail.com) or  
Tim at [tjbrown@rochester.rr.com](mailto:tjbrown@rochester.rr.com)

ARRL members, the January-February issue of "On the Air" magazine has a cover feature on "Demystifying Morse Code." It's a good introduction showing the differences between straight keys, paddle keys, which one to use, and another article about why CW works so well.

For ARRL members and non-members, check out the latest "On the Air" podcast. It goes into more depth in an interview with Michael Fluegmenn KA8AQW. The "On the Air" podcast is available on iTunes, Blubrry, and Sticher



## CW ELMERS

Name	Call	Area	Email
Ned Asam	W2NED	Pittsford	<a href="mailto:w2ned@frontiernet.net">w2ned@frontiernet.net</a>
Tim Brown	WB2PAY	Ogden	<a href="mailto:tjbrown@rochester.rr.com">tjbrown@rochester.rr.com</a>
Pete Fournia	W2SKY	Penfield	<a href="mailto:pfournia@gmail.com">pfournia@gmail.com</a>
Bill Hopkins	AA2YV	Brighton	<a href="mailto:whopkin4@naz.edu">whopkin4@naz.edu</a>
Bob Karz	K2OID	Webster	<a href="mailto:rkarz@rochester.rr.com">rkarz@rochester.rr.com</a>
Joe Rowe	AG2Y	Webster	<a href="mailto:ag2y@rochester.rr.com">ag2y@rochester.rr.com</a>
Harry Williams	KF2TV	Webster	<a href="mailto:harryw7872@gmail.com">harryw7872@gmail.com</a>

## RADIO ELMERS

Name	Call	Area	Email
Tim Brown	WB2PAY	Ogden	<a href="mailto:tjbrown@rochester.rr.com">tjbrown@rochester.rr.com</a>
Dave Carlson	N2OA	Batavia	<a href="mailto:kdcarlso@gmail.com">kdcarlso@gmail.com</a>
Lawrence Hill	N2AJX	Henrietta	<a href="mailto:lawrence.hill@rit.edu">lawrence.hill@rit.edu</a>
Rich Hoffarth	K2AXP		<a href="mailto:rhoffarth2000@yahoo.com">rhoffarth2000@yahoo.com</a>
Bill Kasperkoski	WB2SXY	Pittsford	<a href="mailto:wb2sxy@gmail.com">wb2sxy@gmail.com</a>
Don Kiser	AC2EV	N Greece	<a href="mailto:dkiser100@gmail.com">dkiser100@gmail.com</a>
Karl Heinz Kremer	K5KHK	Chili	<a href="mailto:k5khk@khk.net">k5khk@khk.net</a>
Tim Magee	WB2KAO	Greece	585-704-5747
Mike Moore	KC2NM		<a href="mailto:mikemoore@ieee.org">mikemoore@ieee.org</a>
Peter Schuch	WB2UAQ	Perinton	<a href="mailto:pschuch@rochester.rr.com">pschuch@rochester.rr.com</a>
Forest Shick	WA2MZG	Webster	<a href="mailto:fshick3@gmail.com">fshick3@gmail.com</a>
Dave Timmons	W2DST	N Greece	<a href="mailto:dstimmons@gmail.com">dstimmons@gmail.com</a>
Steve Verzulli	KA1CNF		<a href="mailto:verzulli@yahoo.com">verzulli@yahoo.com</a>
Dan Waterstraat	W2DEW	Henrietta	<a href="mailto:higreen@rochester.rr.com">higreen@rochester.rr.com</a>

# PUBLIC SERVICE REPORT

MIKE MOORE, KC2NM, PUBLIC SERVICE COORDINATOR

New York State is one of a handful of states that observes the birthday of President Abraham Lincoln on February 12. One of the many quotes ascribed to our 16th president is "Give me six hours to chop down a tree and I will spend the first four sharpening the axe." What does this message to us this month have to do with ham radio public service events? Well, there are 4 months from the start of February to our first scheduled public service event and now would be a good time to "sharpen the axe" and make sure that we are ready for the event season. Here are a few suggestions.

1. Many of our public service events involve operating as a mobile station in contact with net control. There are many local nets that can provide us with an opportunity to practice operating on a net. [Monroe County ARES/RACES](#) conducts a weekly net most Thursday evenings. There are many other nets listed on the [Operating Page](#) of the RARA website. Checking in with one or more nets would be a way of honing our network operating skills and affords an opportunity to ask questions.
2. Most public service events involve covering distances greater than can be spanned with a handheld radio. To prepare for operating in one of these events, now might be a good time to invest in or arrange to borrow a mobile radio and antenna. A useful skill would be to learn how to program the radio for the needed frequencies, offsets, and tones. This can generally be done from the front panel or using a Code Plug Editor for the radio.
3. Having APRS capability for an event can be very helpful. APRS will display your mobile station location on the [APRS Map](#). In addition, this map may be customized with objects specific to the event such as routes, rest stops. APRS provides the folks at net control a big boost in situational awareness. Adding an APRS station to your mobile setup involves a GPS, modem, radio, and antenna. There are also phone apps that will provide the same information via cell phone data connection..

We will continue to work with our served agencies about what the coming year will bring. For up to date information about all of our Public Service events take a look at our RARA website

[https://www.rochesterham.org/public\\_service](https://www.rochesterham.org/public_service) .

## 2022 ROCHESTER HAMFEST UPDATE

TIM GUYOT, KB1POP

We're currently negotiating with two venues for the **2022 Rochester Hamfest**. We're confident we'll have a location and are planning the event for June 4th.

Thanks to Anand Choudri KC2KPG, we have an easy to follow procedure that includes all the steps to put on a great hamfest.

What we need now is a committee of 2-4 people to produce the event.

- Raffle and Prizes
- Publicity
- Exhibits
- Ticketing
- Parking
- Flea Market
- Facilities
- Food
- Talk-in
- Alternate Activities
- Exams

We have committee members returning from last year, but we could use more help to spread the work. There are several steps to be taken between now and June 4th.

**It is essential that we get started on some of these items within the month and we could really use your help!**

To be on the committee, you mostly need to be able to respond to e-mail, make a few phone calls, and attend about one committee meeting per month. If you're interested in being on the committee, please e-mail

[hfproducer@rochesterham.org](mailto:hfproducer@rochesterham.org)

### Please mark your calendars for our upcoming RARA Public Service Events

Event	Location	Day	Date
Tour de Cure	Xerox, Webster	Saturday	June 11, 2022
MS ROC the Ride	TBD	TBD	TBD
Fairport Liftbridge Regatta	Canal, Fairport	Saturday	Sept. TBD 2022
Pumpkin Patrol	Bridges of NYS Thru-way	Sunday, Monday	Oct. 30, 31, 2022
Holiday Science and Technology Days	Rochester Museum and Science Center	TBD	TBD

## 2021 RARA EDUCATIONAL GRANT

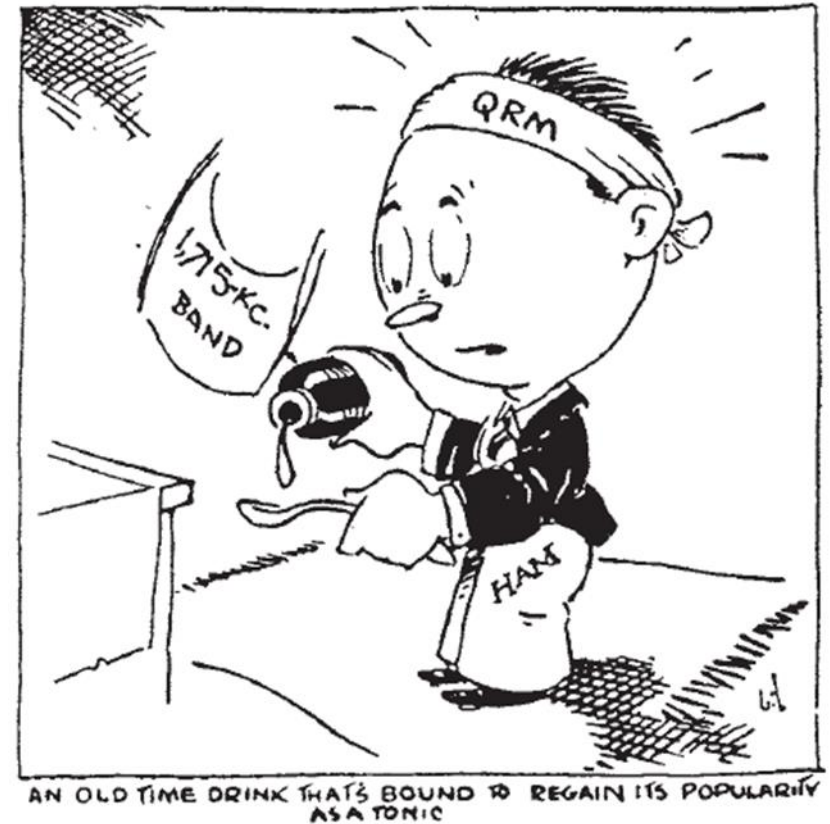
The RARA Board of Directors has approved the application for the RARA 2021 Education and Technology Grant received from the Antique Wireless Association (AWA). RARA established the grant to provide funding for educational projects and specific equipment needs that promote practical applications in the STEM fields of electronics and radio communications with an emphasis on youth-based activities. The grant is just one of the ways that RARA fulfills its mission goal to “promote scientific education and knowledge of radio engineering and communication skills by facilitating the exchange of information, improving individual operating efficiency, and strengthening the welfare of amateur radio in the community.”

The AWA, with its museum located in East Bloomfield and international membership, is well known to many RARA members. It is chartered as a non-profit educational organization. AWA sought funding under the RARA Education and Technology Grant to extend their Radio Fab Lab (RFL) program in a way that will further their mission element to “develop educational programs and opportunities for all ages”.

The RFL program was launched in 2017 and serves area youth from ages 8-15. RFL is an extensive series of hands-on electronics workshops that are now held at the AWA Museum throughout the year. Youth participants generally attend with an adult and they team to build projects from transmitters, receivers, code practice oscillators, and audio amplifiers to optical communications systems and analog/digital computers. So far, AWA has graduated almost 100 children through the program.

RARA, through the 2021 Education and Technology Grant, will fund the purchase of a trailer that will be used to extend the AWA Radio Fab Lab program and provide on-site sessions at area schools. Using the trailer provided through the RARA grant, AWA will be able to take its programming directly to the students. Our grant is part of an additional funding package that will bring the transportable RFL program to fruition during 2022. AWA has the balance of the needed project funds in hand. Bob Hobday N2EVG, AWA President and Chairman, will provide oversight of the project and resources. Bob is a past president of RARA.

RARA will receive updates regarding the progress of the transportable RFL program and these will be reported in the RARA RAG. For more information about the RARA Education and Technology Grant see the link: [RARA Education and Technology Grant](#). For more information about the AWA see the link: [Antique Wireless Association](#).



Courtesy February, 1929 QST

## 2022 WINTERFEST is Canceled

At the January RARA BOD meeting, the board agreed to cancel the Winterfest that was scheduled for Feb 5, 2022 at the Stewart Lodge in Mendon Ponds Park. The reason for the cancelation is that it is an indoor event and the risk from the expanding Covid-19 infections seemed to make holding the event unwise. Accordingly, Monroe County Parks has completely refunded our reservation fee.

# WINLINK FOR ROCHESTER

PAUL CONAWAY, KD2DO



As you may have read here in November, Rochester had a **VHF Winlink** station operating on **145.03**. It is located on the top of the Public Health Building at 111 Westfall Road. Grid:FN13ec57mi

We **now** also have an **HF Winlink** station. It is running from my QTH in Perinton. It puts out about 30 watts into a G5RV. It has frequencies on 80m, 40m, and 20m. Currently it is only running the VARA protocol but it is licensed and parked in portions of the bands that allow 2300 Hz wide signals from unattended digital stations. This means that if you have a clear path and good signal to noise ratio, then you can get very good speed (4k bps). When I get a Windows 10 computer I will probably be able to also run the ARDOP protocol.

This station is setup at my house while I am tweaking the software and hardware of the system. When it all becomes stable enough to run unattended, it also will be moved to the Public Health Building at 111 Westfall Road. An all band HF antenna, a CHA-250, was installed there in November for this purpose.

To find the frequencies of this new station use Winlink Express and open a session of "Vara HF Winlink". On the window that opens, go to "Channel Selection" then select "Update Via Internet". Wait for it to finish then click on the column of the table called "Path Reliability Estimate" (once or twice) to bring up the latest information from the land of Winlink central control, and to show the highest probability stations at the top. (in Green) If I need to change one of the frequencies it will always be listed there.

I will be preparing a training session soon possibly an "Academy Saturday" to show people how to install and operate Winlink. Until that time, here is where to go to do it yourself. Go to [www.Winlink.org](http://www.Winlink.org) then open the tab called "Book of Knowledge" and read the articles and watch the videos. Then go to Google and search for more YouTube videos on the topic of getting started with Winlink. But try to avoid things more than a few years old because some names have changed and an old protocol called AMTOR is no longer used. It has been re-

placed by one called ARDOP. Also there is a newer better protocol called VARA, that wasn't around when some of the older videos were made.

The Original

## Winlink Wednesday

is a group of hams from all over the country who check in by sending a message on Wednesday. This group started in Virginia as a way to encourage the state ARES and RACES groups to get practice using Winlink. It has grown a lot in the last few years. For example on Dec 29, Winlink Wednesday received 482 (new record!) total messages from 361 (new record!) unique participants worldwide, including 151 Virginia stations. There were 54 P2P connections during the morning session (including those to Alternate NCSs), and 57 P2P connections during the evening session. Read more about this group and what P2P means at <https://winlinkwednesday.net/> I suggest reading at least the first four paragraphs of "All About Winlink Wednesday" for an overview of why Winlink can be an important part of emergency preparedness.

Since then, several other W.W. groups have started up. One is right here in the Hudson Valley area of New York State. (Except that they meet on Thursdays). The table that follows is a list of the various Winlink nets that I frequent. There are many others spread all across the country but I concentrate on the regional area because these folks share climate and geography with us and therefore may be more important in emergency situations than, say, Texas.

To: (Jim)	KB9MMC
Subject:	WI ARES/RACES Winlink Tuesday Checkin
Message:	(call, first name, city and county)
Web:	<a href="http://wi-aresraces.org">http://wi-aresraces.org</a>
To: (Bill)	KC2OQV
Subject:	Hudson Valley Winlink Thursday Check-In
Message:	(Callsign, First Name, City/Town, County (HF or VHF))
Website:	<a href="https://sullivan-ares.org/nets">https://sullivan-ares.org/nets</a>



To: (Dave)	KN4LQN
Subject:	VA Winlink Wednesday Check-In
Message:	(call sign, first name, city or town, county, state (HF or VHF, etc.))
Web:	<a href="https://winlinkwednesday.net/">https://winlinkwednesday.net/</a>
To: (Jack)	NF1L
Subject:	NH Winlink Wednesday Net
Message:	(Callsign, First Name, City/Town, State, Radio Mode (Vara etc), (HF or VHF))
Web:	<a href="https://nediv.arrl.org/2020/10/01/winlink-catching-on-in-new-hampshire/">https://nediv.arrl.org/2020/10/01/winlink-catching-on-in-new-hampshire/</a>
To: (Tim)	NJ2N
Subject:	SNJ Winlink Wednesday Net
Message:	(Callsign, first name, City/Town, State, Protocol (Vara etc), (HF or VHF))
Web:	<a href="https://groups.io/g/SNJEMCOM">https://groups.io/g/SNJEMCOM</a>
To: (Ryan)	KB8RCR
Subject:	Great Lakes Winlink Wednesday Net check-in
Message:	(Firstname, Callsign, City/town, County, State, Country)
Web:	
To: (Kevin)	W4AKH (any day of the week)
Subject:	FL WL NET, (first name, city, State, Mode (VARA etc.) ,P2P (if used))
Message:	(blank except as noted on web page)
Web:	<a href="https://w4akh.net/">https://w4akh.net/</a>

In addition to those weekly sessions the **Red Cross** has drills on the second Tuesday of each month. They use Divisional Clearing houses to spread out the traffic burden .

Check out one or more of these nets (if we could call them that). They will respond later with a list of all those who checked in, and usually an invitation for next week.

Some of these groups do occasional “extra credit” options such as using a specified ICS form, or asking you to add local weather conditions. An invitation for the following week will contain details of any options for the next net.

Whether you use the local VHF gateway or use HF to get closer to the destination, you can gain a lot of experience using Winlink Express by participating in these nets. Not just sending messages, but also using standard forms, and then categorizing and organizing all the incoming messages just as might need to be done for a served agency.

Note: To see a grid square map that is capable of using 10 character resolution, see <https://k7fry.com/grid/>

## THE LIGHT OF CURIOSITY

FOREST SHICK, WA2MZG

I was looking at LED light projects on [Thingiverse](https://www.thingiverse.com/). Here are 2 that looked interesting.



Arc Lamp



Circle Lamp

LED's are fairly simple devices. Run current through them and they emit light. Of course we could always discuss the physics behind them but that is way out of my realm.

What is my fascination with LED's? Not a fascination but a curiosity with the commercially available light strips and what could they be used for from a ham radio perspective.

Off to Lowes I went and purchased a LED light strip from Green Earth Lighting. There were many different brands but this was the least expensive, color changing strip available on the shelf that day.

I did not want to spend a lot of money for this experiment but I wanted to buy something with enough features that it would be interesting to dissect.

The package contained the following items:



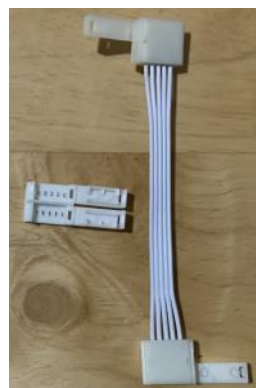
12VDC Power Source



Light Controller and Remote



12 Foot Spool of LEDs

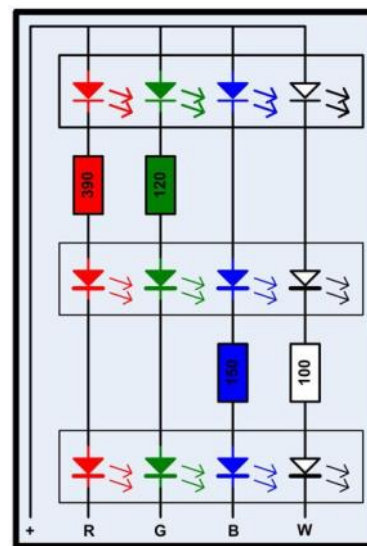


Connection Accessories



Here is one section which contains 3 LED modules and 4 resistors. Each LED module contains a White, Red, Green and Blue LED. Notice the scissor icons. The strip may be cut at this point and not cause damage.

The 12 ft strip contained 36 of these sections.



LED Strip

Here is a schematic of 1 section.

All sections are connected in parallel.

On the back side of the strip are 5 copper traces which are the bus for the 5 signals: +12VDC, White, Red, Green and Blue.

Each LED color triplet is turned on by grounding the appropriate bus signal.

As shown in this schematic, here is the voltage and current for each color.

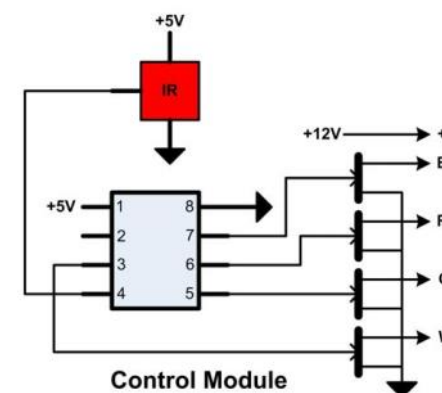
	White	Red	Green	Blue
VLED (V)	3.14	2.03	2.98	3.11
ILED (ma)	22	15	23	18

Here are the 4 LEDs in one module each illuminated separately.



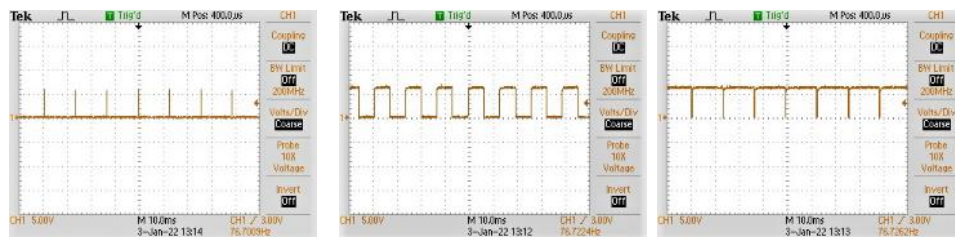
If you look carefully you can see that each color LED is located in a different part of the module.

Lets take a look at the control module. Here is a picture of the circuit board inside the module and an abbreviated schematic. I have shown the transistors as FETs but they might be NPN bipolar transistors. There is also a 5.1V Zener diode to regulate the 12V down to 5.



The IR device is the receiver for the commands from the remote control device.

Intensity and color are controlled by pulse width modulation as shown below.



NOTE: the LEDs are turned on by grounding the signal line.

The picture on the left is near 100% LED on time, maximum intensity. The picture in the middle is 50% LED on time and the picture on the right is near 0% LED on time, very short duty cycle therefore low average intensity.

The pictures of each LED were taken at near 0% on time. If you are trying to take a picture, the LEDs actually flash - they turn on and off proportional to the ON time. At near 0% on time, getting a picture of the LED ON requires a bit of luck!

By varying intensity with the on time of each LED, colors other than the 4 basic LED colors may be displayed. Notice the color buttons on the remote control. These are the preprogrammed colors available.

It is interesting to note that the White LED produces a “warm white”. If you turn on the Red, Green and Blue LED and turn off the White LED, a “bright white” is produced.

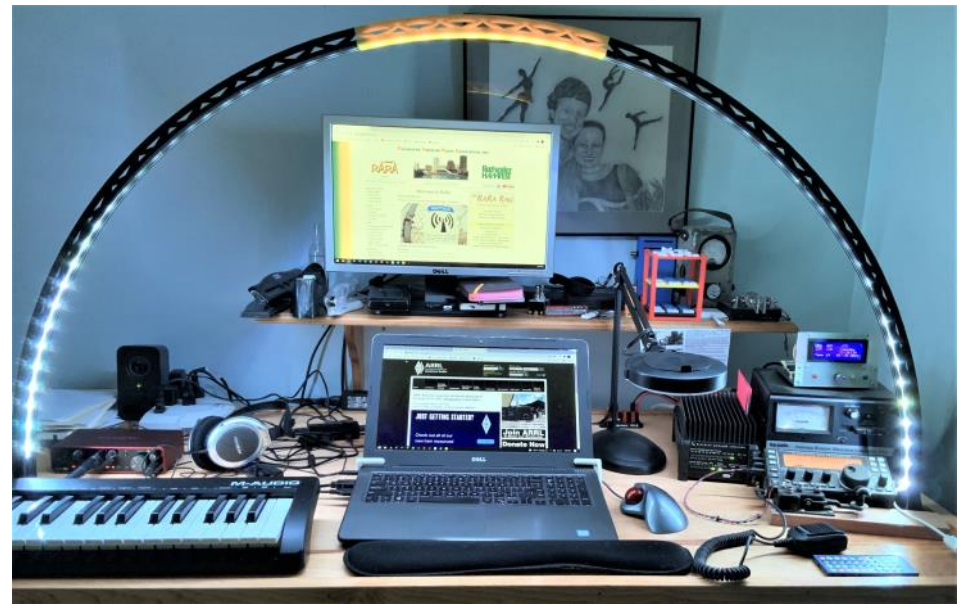
So now - the question - what can I use the strip LEDs for?

You only get 1 control module with the 12 foot strip but the strip can be cut into as many as 36 individual strips. You will need a controller for each individual strip. You could use a microcontroller as a PWM or even four 555 IC's. Since the strip is powered from 12VDC, it fits nicely into the power system of your station or portable setup.

My first thought was providing adjustable lighting for low light / night operation and build the LED strip into my portable setup.

As shown in the first picture at the beginning of this article, a nice surround lighting for your work bench might be built which would help eliminate many shadows that hinder building and debugging.

Please share your ideas for their use and send pictures if you build something with the LED strips.



My Arc Lamp:

- Lights my desk nicely
- Can adjust the brightness and color with the remote
- 90 hours to print
- 177 meters of filament, about \$10.

I ran out of black filament!



# A TALE OF TWO POTA ADVENTURES

SUSAN AIELLO, W2SBA AND KARL HEINZ KREMER, K5KHK

... or, How sometimes stuff just works, and other times the Universe seems to interfere at every step...

## Trip 1 – South Florida to Rochester, NY

Over Christmas, we drove up a carload of things for Susan's parents who are preparing to move back north from Florida. The focus of this trip was to get from Florida to Rochester, but all these states in between are of course very inviting to get some additional states for our Geocaching stats, and to add some new states to our Parks On The Air (POTA) activations map. If you're not familiar with the great outdoor adventure of Geocaching, you can learn more at [www.geocaching.com](http://www.geocaching.com).

### Preparation

The plan was to fly south, rent an SUV and then drive north. This puts some limitations on the ham gear one can bring. My POTA station is relatively small and does fit in a backpack, but this does not include the antenna.

Planning this trip involved several different elements:

- Selecting a route that brings us back to Rochester
- Identifying one POTA park in each state that is conveniently located
- Finding one Geocache in each state
- Selecting the equipment to bring and most importantly, getting it to Florida

There are different ways to come back to New York and we decided on the more central route, avoiding I-95. Once the route was fixed, I started to look for POTA entities along the way. I concentrated on state parks, and skipped state forests, wildlife management areas and other entities. State parks are usually easy to find and have good parking and restrooms, unlike some of the more remote entities. I was able to identify parks in the seven states between Florida and NY that fit these criteria; Georgia, South and North Carolina, Virginia, West Virginia, Maryland and Pennsylvania.

That left the gear: I split it into two parts: The stuff I was carrying to Florida in my carry-on luggage, and a few larger things that I just ordered from Amazon had had them shipped to Florida. These "larger things" were one 40m hamstick and a backup multiband antenna that I planned on tuning for 20m (a MFJ-1699T). I carried two full radio stations: My KX2 backup with a small 3Ah battery, and the FT-857D with a 6Ah battery. I had two chargers, one for mains power, and one for the car. In addition, I had an antenna tuner, cables, adapters, a few odds and ends, and a 5" mag mount for the car roof. I left the tri-mag



Figure 1 - Found Geocaches show up as smileys. This approximates the route we took.

mount at home☺ I also threw a wire antenna into the suitcase, just in case... There is one constraint that got imposed by the 6Ah battery: It cannot deliver the current to run the FT-857D at 100W, so I had to dial back the power to 50W. And just in case, we were also equipped with AAA paper maps. You never know...

### DAY 1

Once we hit the road, it was smooth sailing; all the planning really paid off. We looked for a Geocache in the Georgia State Park, thinking we'd knock off both goals with one stop, but while looking, realized you need situational awareness for different things than up north: venomous snakes and alligators were "advertised" for the first two parks! Going forward, we decided to stick to welcome centers and parking lots for geocaching. We activated Crooked River State Park in Georgia (K-2170), and then continued on to Santee State Park (K-2912) in South Carolina, where we also stayed the night. We even checked into the Green Eggs and Ham net via Echolink from the hotel.

### Day 2

We drove to North Carolina and activated Lake Norman State Park (K-2740). At this point it was clear that the 40m ham stick was working pretty well. As usual, I was running the ham stick with two 33ft counterpoises. Based on how the mag mount is constructed, there was no way to attach the counterpoise wires directly at the base, so they had to be attached to the end of the coax cable before the common mode choke, followed by more coax to the radio. I tried to optimize my packing and had a 15ft piece of RG8X with BNC connectors on both ends. This way, I would have been able to use it with the KX2, and with adapters also with the FT-857D.

In Virginia, we ended up doing a "2-fer" – two parks with just one activation at Shot Tower State Park (K-1317). The tower was built to make ammunition for early settlers by dropping molten lead from the top of the tower into water at its base. This park also happened to be along the New River Trail State Park (K-1310), making it a POTA 2-fer. From there we went to Hawks Nest State Park (K-1813) in West Virginia, the site of America's worst industrial accident (google "Hawks Nest tunnel disaster"). We had a beautiful view over the gorge, and again, this was a 2-fer with the New River Gorge National Park (K-0696). We man-



Figure 2 - The activators in front of the scenic New River Valley



Figure 3 - Shot Tower (K-1317)



aged to make two contacts to Rochester from here: W2SUZ and W2NVP.

### Day 3

The next morning, we drove into Maryland at the point where it is just two miles wide— thanks to surveying by Mason and Dixon, and activated the Casselman River Bridge State Park (K-1563). This is where the bad weather started – rain turned into snow when we crossed the mountains into PA and NY; it was slow going for a while. In Pennsylvania, we stopped at Bald Eagle State Park (K-1329) for our last activation.

This trip was a great success; our first big road trip, enjoying so many interesting sights – we even drove through two mountains! All of the POTA stops and geocaches really only added about 5-6 hours to the trip and made it all so exciting and interesting. We never had a problem getting to 10 contacts required for a successful POTA activation, and the 50W station with the 40m hamstick performed flawlessly.

### Trip 2 – New Year’s Activation 1/1/2022

Every POTA entity has a number that starts out with a regional identifier (“K” for the US) and a four-digit number. For the last two New Year’s Days, we’ve activated the park with the numeric code that matched the new year (Buckhorn State Park K-2020 and Buffalo Harbor State Park K-2021). Both of these parks were a nice easy day trip from home with no traffic on the holiday. K-2022 is more of a stretch; on the St. Lawrence River, and depending on the weather conditions, not quite as easy to get to in a morning’s drive. We decided to ring in the New Year in Watertown, and then activate the park in the morning of New Year’s Day, and then drive home.

This time, I brought the FT-857D, but with the 20Ah battery to run 100W, a couple of hamsticks and the 31ft Jackite pole for a wire antenna. On the way to Watertown, we intentionally overshot for a quick geocache and POTA activation, South Hammond State Forest (K-5303), adding St. Lawrence County to our NYS stats.

Back in Watertown, we checked into our hotel, ordered some food for takeout and headed out to pick up the order. That’s when things went south: the car would not start! It’s a long and boring story, but we got it running and at this point, we had to decide if we wanted to risk turning the car off and potentially be stranded on a holiday in Watertown, or play it safe and get us and the car back home. After some exhausting driving through thick fog, we made it home before the ball dropped!

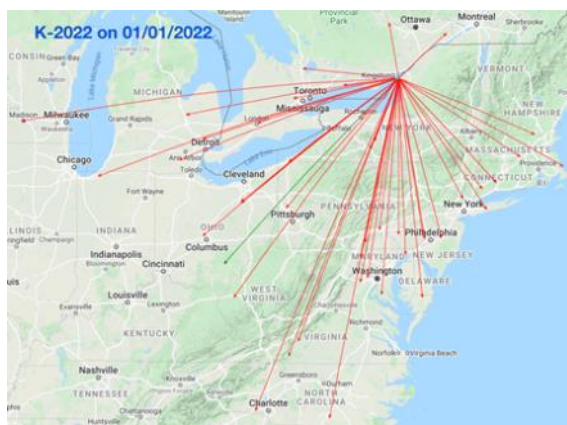
### Crazy or Dedicated? You decide!

New Year’s morning we jumped in the other car and head back to Watertown: After two years of what I call “activating the most appropriate park on New Year’s Day”, we had a reputation to live up to! For the last half hour of our drive, we even checked into the Elmer’s Corner Zoom meeting via cellphone ☺ After arriving at Burnham Point State Park (K-2022), we set up the “big” antenna – the Jackite mast with a random wire antenna. This setup is described in the



June 2021 RARA Rag. When I turned the radio on, the 40m band sounded like 10m during the extreme solar minimum – quiet, no noise. The first thing to check of course is “Is the antenna connected” – and yes, that was the case, and it was connected to the right antenna port on the radio. I checked a few more things, and nothing obvious stuck out as the cause of the problem. I started to switch the backup antenna, and mounted the mag mount on the

car, and started to attach the hamstick. While I was doing that, all of a sudden, the radio came to life: I had pushed the two boxes with the common mode choke and the 9:1 transformer aside to be able to get to the mag mount, and that is what woke up the radio. It turned out that one of my short jumper cables to connect the different devices was faulty. I replaced it (it’s always good to have a backup for everything), and we are up and running. After 50 contacts, the QSO rate had slowed down, and we called QRT to get back on the road before the snow that was forecast hit the area.



forward to our next adventure!

And just in case you want to know: The car was failing because a leak in a coolant line was dripping on the starter. As we all know, water and electricity do not go well together :-)

We had two completely different trips. The first one where everything ‘just worked’, and the second one that had a few challenges to overcome ☺ Regardless, we loved them both and look


# RAGS OF THE PAST

ED GABLE, K2MP, RARA HISTORIAN

## 20 Years Ago, February 2002

This month, as always, the Rag opened with a message telling of the topic for the next RARA meeting. The task of arranging the meeting and writing that opening message always went to the Club's Vice-President by nothing more than a long tradition. As such we heard from Marykay Vesco KC2DPG, once again with her revealing the next meeting to be four individuals from the Genesee Valley Aeromodlers club. Those were Glenn Crocker, Charles Vogel, Eric Higham and John Ward KE2ST. These four were experienced model pilots, and they had to be, as their exciting demonstration involved flying radio controlled models inside the Henrietta Road Fireman's meeting room. That night RARA also had a video tape program running that showed last month's RARA Marconi Day Special event activity. "Amateur Radio, More Than a Hobby" is something we Amateurs already know but was also the title of an article written by RARA President Peter Fournia W2SKY. Peter revealed data that showed 80% of a recent poll taken at a Xerox Amateur Radio club meeting said the hobby influenced their educational and career path direction. Peter went on to describe how RARA, through their Radio Coaches program, is a part of that career building path. Peter continued with that theme when writing on the success of the fifth season of an Amateur Radio display and on-air demonstrations by RARA and the Rochester DX Association (RDXA). About 25 volunteer hams did a meet and greet with the many visitors enjoying the Rochester Museum and Science Center event while W2RDX, the RDXA club station demonstrated QSO's with 28 different countries despite a noisy location. Harold Smith K2HC, Hamfest General Chairman, had two Rag Inputs this month where he introduced the 2002 Rochester Hamfest and told local folks to use and visit the new Hamfest Website at [rochesterhamfest.org](http://rochesterhamfest.org). Harold also told of the need for a new Flea Market Manager. This important job involves way more than hamfest day activities but also involves planning and coordination of venue and marketer needs months in advance. Jack Tripp W2JAT, was this month's candidate to write the semi-regular column titled "My Most Memorable QSO." This time Jack told of a Ham Radio demonstration that he and John Woike W8JW, had set up for some Brighton Boy Scouts. The wide-eyed boys were just amazed at listening to a perfect QSO with UR3IDD, a ship radio operator on the Mediterranean Sea, who chatted about his duties, his home in the Ukraine and other topics. I think Jack and John were surprised too as their rig was a 100 watt transceiver with coax out a window to a mobile whip on John's van parked in the driveway. Bill Kasperkoski WB2SXY, writing on a new initiative by the RARA Board of Directors, asked for input from members, via a provided e-mail address, essentially asking "how are we doing?" Some questions: What were the best, and worst, RARA activities last year? What RARA Services are most important to you? Do you want RARA activity notices via email or a website? Well, it is pre Hamfest season and thus we know Lloyd Caves WB2EFU (N2PU), is getting pen in hand to keep us all informed on plans for the 2002, Rochester Hamfest. Lloyd told of firm plans for VE testing, a program on Computer Aided Antenna Design by Ed Hare W1RFI, from the ARRL Lab, and a ARRL Affiliated Club Conference meeting with Bill Edger N3LLR, Atlantic Division Vice-Director. With regret it was reported that Earl Young W2WQV, David Frisch WA2HPC and

Chet Selbert WB2ZFS were reported as Silent Keys. There were no Want Ads in this issue but you could run over to Glenwood Sales, 594 Hague Street for your component needs according to their many year support of RARA though advertising.



# the RARA RAG

Published by  
ROCHESTER AMATEUR RADIO ASSOCIATION, INC.

VOL.54      FEBRUARY 2002      NO. 6

## Aeromodlers

Marykay Vesco, KC2DPG

Aeromodling is our topic for the February 1, 2002 meeting. Four guests whom are members of the Genesee Valley Aeromodlers club will be demonstrating radio controlled airplanes. Glenn Crocker, Charlie Vogel, Eric Higham, and John Ward will be presenting the program. They will have three or four small radio controlled airplanes that can fly indoors for a demonstration as well as radio equipment. So get ready for a really exciting program.

Don't forget the meeting will be held at 8 PM at the Henrietta Fire Hall, 3129 E Henrietta Road. Everyone is invited to bring a guest, whether or not they are a ham!!

Also, before and after the meeting we will have a TV w/VCR available for members to view the taping of the Marconi Day Special Event. There will also be refreshments after the meeting.

## Amateur Radio

### More Than A Hobby

Peter Fournia, W2SKY

Amateur radio activists are rediscovering the educational and vocational value of their hobby. Rejuvenated by younger and more proactive hams the hobby has been catching up with the mind-numbing explosion in telecommunications.

Many professionals in communications and technology have worked into their career with help from amateur radio. For example, a survey was taken at a recent Xerox Amateur Radio Club meeting where 80% said the hobby influenced their educational path and success with their careers. Most were introduced to the hobby in their teen years, many as boy scouts.

The hobby continues to bring modern telecommunications technologies within reach of the hobbyist. Today's amateur radio operators use computers to log contacts, send digital messages, control equipment, track amateur satellites, interface radios on the Internet and even simulate performance of communication systems. Of course hams still specialize in emergency communications and enjoy the challenges of armchair chats using their radio over using the Internet.

The educational value of the hobby is important to a group of 15 hams called Radio Coaches. They have been volunteering at two Rochester middle schools over the past 3 years. This is a 10-session program for 6<sup>th</sup> graders. The Radio Coaches enlighten the students with interactive demonstrations involving language arts, geography, science and math. Other volunteers participate at the Rochester Museum and Science Center and with area Boy Scout troops.

(Continued on page 6)

## RARA Meeting

February 1, 2002  
8:00 PM

Henrietta Fire Hall,  
3129 E. Henrietta Rd.

## Aeromodling

Presented by  
Glenn Crocker, Charlie Vogel,  
Eric Higham, and John Ward

Of The  
Genesee Valley Aeromodlers



Really, this wasn't planned. Looking at the "20 Year" article herein you will find a comment about the first Rag entry in each issue will be the coming meeting program. But now I have to report that there is no meeting announcement nor will one be found on any page. The reason is simply that the meeting has not been decided yet and as if there was some unknown malady causing program development retardation, RRRA President Ray Pickens WA2MYG and RDXA Chairman Rick Berg KS2F, both reported that they too had no programs for their next meetings. Let's give them all a break and say it was the busy holiday season that that slowed things down. There was good news as we learned that RARA President Don Drennon (sk) W2EBF, was released from the hospital and is recovering at home after a kidney ailment. Rag Editor Ron Jakubowski K2RJ, announced the appointment of Frank Pollino K2OS, to the position of Rag Advertising Manager. Frank recently moved to Rochester from the Batavia area after accepting a position with Harris/RF Communications. Ed Holdsworth (sk) N2EH, wrote to tell of the final move of the K2JD club station to 111 Westfall Road. One of the most difficult tasks was moving the large TH6DXX multi-band, multi-element HF yagi with it still fully assembled! How, you ask? Simple, wait until Sunday morning, get a bunch of guys to pick it up, and just start walking down Westfall Road. It was amazing to watch. Drivers just moved out of the way, no horn honking or other comments for the entire trip. A new monthly column was introduced called The Cops Column, written monthly by Howie Davies N2CUN, himself a local cop and active ham. Harold Smith (sk) K2HC and Rich McCracken KA2CVN, co-wrote in this issue an article describing their efforts to write and introduce a Bill to eliminate Sales Tax on Amateur Radio equipment. The Bill was accepted and sponsored by NYS Assemblyman Roger Robach. Regretfully it did not pass. Gary Perkins WB2MDC, himself a licensed private pilot, wrote trying to drum up interest in forming a club for flying hams. With regret it was announced that Al Mumby WB2MCP, had become a Silent Key recently, from a heart attack. Al was active in all of the local radio clubs, was a past RARA President and could be heard daily on HF and VHF. From the Want Ads you could buy a Heath HW-101 with power supply from Chuck Tremblay WB2ACB

# The RARA RAG

Published by

The Rochester Amateur Radio Association  
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VOL. 34

FEBRUARY 1982

NO. 6

## FEBRUARY MEETING: MID-WINTER SURPRISE !

The February RaRa meeting will be held Friday, February 5th at 8 p.m. in the lower meeting room of the Eisenhart Auditorium of the Rochester Museum and Science Center, South Goodman Street at East Avenue. As of January 24th, the program had not yet been firmed up, but Vice-President and Program Chairman Ed Holdsworth, N2EH, assures us there will be an excellent program (or two) so come and be surprised !

## RaRa PRESIDENT OUT OF HOSPITAL

Don Drennan, W2EBF, RaRa's president, suffering from a kidney ailment, was released from the hospital in time to build up a formidable score in the January VHF contest. He hopes to be getting out to the meetings soon and resuming some of his normal activities. We all wish him a speedy recovery and the very best of luck.

K2RJ

## VALENTINE DINNER-DANCE: FEBRUARY 13th

In about two weeks the Valentine Dinner-Dance will be here. If you still haven't purchased your tickets plan on purchasing them at the February RaRa Meeting. Our Dinner-Dance will be at Barry's Party House on Saturday the 13th starting at 6:30 p.m. The tickets are \$13.00 which include your choice of Stuffed Breast of Chicken, Roast Sirloin of Beef or Broiled Fresh White Fish. Our after-dinner entertainment is being provided by the Peter Matina Orchestra. The event this year promises to be very successful, so plan on attending.

Contact Pete Secrist, WB2SUN, or any RaRa Board Member for your tickets.

## K2OS ACCEPTS NEW RAG STAFF POSITON

The RAG now has an advertising manager with the appointment of Frank Pollino, K2OS. Frank recently moved to the Rochester area from Batavia and is employed by Harris-RF Communications as the engineering buyer in the Purchasing Department. He is a charter member of the Genesee Radio Amateurs (GRAM) and was at one time the editor of the GRAM Newsletter. He is well noted for his big signal on VHF and UHF and for his many contest expeditions. We wish him the best of luck in his new job with the RAG.

## RADIO WORLD TO SPONSOR MINI-FEST FEBRUARY 20th

Radio World of Oriskany, New York is sponsoring a Mini-Fest February 20th at the terminal building of the Oneida County Airport. ICOM will be co-hosting the event and will be showing their latest models. There will be a free indoor flea-market for non-commercial individuals. Free coffee will be served and other food and refreshments will be available. Flea-marketeers must bring their own tables and chairs.

The Oneida County Airport is located 5 minutes from exit 32 of the New York State Thruway.

## SILENT KEY

Alvin L. Mumby, "Al", WB2MCP

Past President of RaRa. Member of ARRL, Rochester VHF Group, RRRA, Kodak Park Amateur Radio Club and AWA. Proud Possessor of the 'secret' formula for RaRa Hot Chocolate. Al was not afraid to think, to do, to be involved. He was not ashamed to show us how to try and try again. He always knew there was a solution, even when it would elude him. He was open, a seeker, and always a friend.

# VE TEAM

**Testing on Saturday February 19, 2022**  
**At a NEW LOCATION**  
**Returning to RIT**  
**ROCHESTER INSTITUTE OF TECHNOLOGY**

Building 16 - **Schmitt Interfaith Center**  
 43.08402626755475, -77.6734520379509

Parking: **U-Lot**  
 43.08261562973969, -77.6739921659069  
 It is off Andrews Memorial Drive

Room: **Skalny Room (SMT-A500)** there is an access door by the dock marked by the blue arrow.

**Pre-registration is required visit:**

<https://hamstudy.org/sessions/14612/inperson> to find the latest session.

**Masks and Distancing IS Required**

More information is available on the RARA website:

[https://rochesterham.org/license\\_testing.htm](https://rochesterham.org/license_testing.htm)

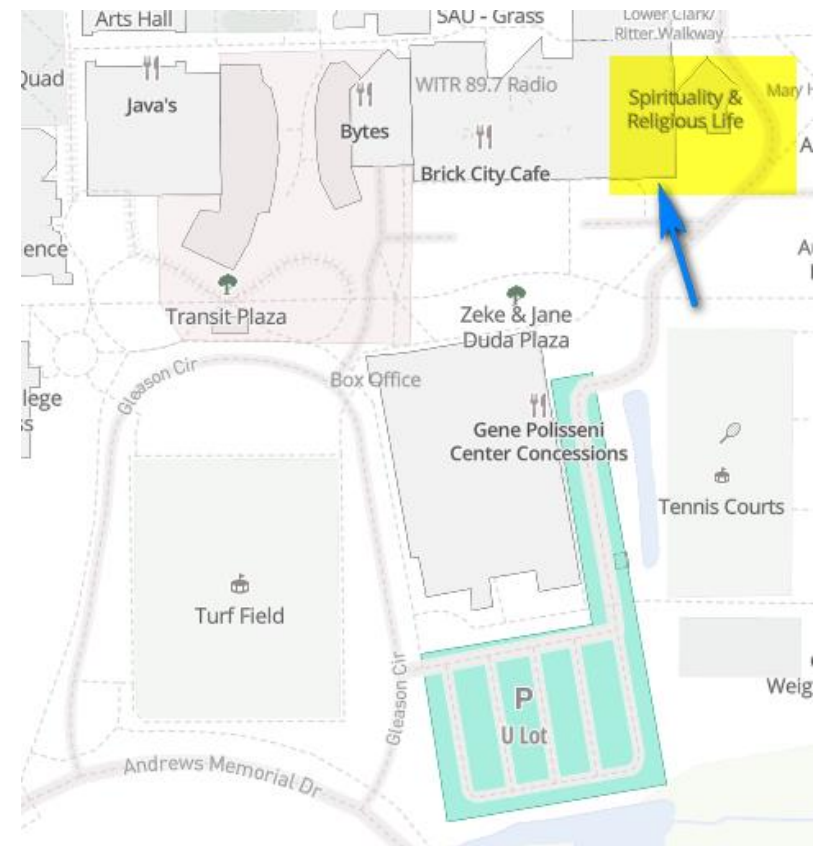
Applicants must supply their own PPE (Mask is a minimum), pen, pencil, calculator and be COVID negative and symptom free

Testing begins at 10:00AM.

Testing is free!

Jeffery Bahtees	KD2YIO	E	Thomas Bennett	KD2VRS	E
David Fitzgerald	N2ROC	E	<b>George Huber</b>	KD2YPL	T
<b>Robert LeSuer</b>	KD2YPM	T	Robert Phelps	KB2TQE	G

**New licensees names are in BOLD**





# RaRa CALENDAR

TIM BARRETT, K9VB, MEMBERSHIP SECRETARY

## February 2022

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		<b>1</b> RTTYOPS Weeksprint QRP Foxhunt Phone Weekly Test - Fray	<b>2</b> <b>RaRa Monthly Mtg ONLINE 7pm</b> <b>ROC City Net ~1.91 MHz, 7 pm</b> CWops Mini-CWT Test VHF/UHF FT8 Activity Contest UKEICC 80M Contest Walk for the Bacon QRP Contest	<b>3</b> <b>RaRa BoD 6:30pm ONLINE</b> <b>ARES Net 146.610 MHz, 7pm</b> <b>VHF Group 9pm 50.200 USB</b> NCCC, RTTYOPS, SKCC Sprints NRAU 10M Activity Contest Walk for the Bacon QRP Contest EACW Meeting QRP Foxhunt	<b>4</b> K1USN Slow Speed Test	<b>5</b> VT, BC, MN QSO Parties 10-10 Int Winter Contest SSB EurAsia HF Championship F9AA Cup, CW EU DX Contest Mexico RTTY Contest NA Sprint, CW FYBO Winter QRP Sprint AGCW Straight Key Party
<b>6</b> VT, BC QSO Parties 10-10 Int Winter Contest SSB F9AA Cup, CW EU DX Contest Mexico RTTY Contest K1USN Slow Speed Test	<b>7</b> <b>AWA Net 145.110 MHz, 7pm</b> <b>VHF Group 9pm 144.260 SSB</b> WW Sideband Activity Contest ARS Spartan Sprint OK1WC Memorial RSGB 80M Club Champ, SSB	<b>8</b> RTTYOPS Weeksprint QRP Foxhunt Phone Weekly Test - Fray NAQCC CW Sprint	<b>9</b> <b>ROC City Net ~1.91 MHz, 7 pm</b> CWops Mini-CWT Test VHF/UHF FT8 Activity Contest	<b>10</b> <b>ARES Net 146.610 MHz, 7pm</b> <b>VHF Group 9pm 50.200 USB</b> NCCC, RTTYOPS Sprints NRAU 10M Activity Contest EACW Meeting QRP Foxhunt	<b>11</b> K1USN Slow Speed Test	<b>12</b> <b>AWA AM QSO Party</b> CQ WW RTTY WPX Contest SARL Field Day Asia-Pacific Sprint, CW Dutch PACC Contest SKCC Sprintathon KCJ Topband Contest OMISS QSO Party YLRL YL-OM Contest RSGB Topband Contest
<b>13</b> <b>AWA AM QSO Party</b> K1USN Slow Speed Test CQ WW RTTY WPX Contest SARL Field Day Dutch PACC Contest SKCC Sprintathon KCJ Topband Contest OMISS QSO Party YLRL YL-OM Contest Balkan HF Contest	<b>14</b> <b>ARRL School Club Roundup</b> <b>AWA Net 145.110 MHz, 7pm</b> <b>VHF Group 9pm 144.260 SSB</b> WW Sideband Activity Contest OK1WC Memorial PODXS 070 Valentine Sprint CQC Winter QSO Party	<b>15</b> <b>ARRL School Club Roundup</b> RTTYOPS Weeksprint QRP Foxhunt Phone Weekly Test - Fray	<b>16</b> <b>ARRL School Club Roundup ROC</b> <b>City Net ~1.91 MHz, 7 pm</b> CWops Mini-CWT Test VHF/UHF FT8 Activity Contest AGCW Semi-Auto Key Evening	<b>17</b> <b>ARRL School Club Roundup</b> <b>ARES Net 146.610 MHz, 7pm</b> <b>VHF Group 9pm 50.200 USB</b> NCCC, RTTYOPS Sprints EACW Meeting QRP Foxhunt	<b>18</b> <b>ARRL School Club Roundup</b> K1USN Slow Speed Test	<b>19</b> <b>ARRL Int DX Contest, CW</b> Russian PSK WW Contest
<b>20</b> <b>ARRL Int DX Contest, CW</b> Russian PSK WW Contest K1USN Slow Speed Test Feld Hell Sprint FISTS Sunday Sprint Run for the Bacon QRP Contest	<b>21</b> <b>AWA Net 145.110 MHz, 7pm</b> <b>VHF Group 9pm 144.260 SSB</b> WW Sideband Activity Contest OK1WC Memorial	<b>22</b> RTTYOPS Weeksprint QRP Foxhunt Phone Weekly Test - Fray	<b>23</b> <b>ROC City Net ~1.91 MHz, 7 pm</b> CWops Mini-CWT Test UKEICC 80M Contest	<b>24</b> <b>ARES Net 146.610 MHz, 7pm</b> <b>VHF Group 9pm 50.200 USB</b> NCCC, RTTYOPS Sprints NRAU 10M Activity Contest EACW Meeting QRP Foxhunt	<b>25</b> K1USN Slow Speed Test	<b>26</b> CQ 160M Contest, SSB REF Contest, SSB FTn DX Contest UBA DX Contest, CW NC QSO Party NA QSO Party, RTTY High Speed Club CW Contest
<b>27</b> K1USN Slow Speed Test CQ 160M Contest, SSB REF Contest, SSB FTn DX Contest UBA DX Contest, CW NC & SC QSO Parties NA QSO Party, RTTY High Speed Club CW Contest	<b>28</b> <b>AWA Net 145.110 MHz, 7pm</b> <b>VHF Group 9pm 144.260 SSB</b> WW Sideband Activity Contest QCX Challenge RSGB FT4 Challenge OK1WC Memorial					

# NEWS FROM AREA CLUBS

## MONROE COUNTY ARES / RACES NEWS

Monroe County Amateur Radio Emergency Service (ARES)® is an amateur radio public service organization based in Monroe County, New York, and is open to all licensed amateur radio operators. Monroe County Radio Amateur Civil Emergency Service (RACES) is a program of the Monroe County Office of Emergency Management. We participate in training and emergency exercises so that we can serve other agencies during times of communication failure.



The Monroe County Amateur Radio Emergency Service, Inc. holds its meetings on the fourth Thursday of each month except in July, August, November and December. Anyone interested, members and non-members, are welcome to attend.

Until further notice, our meetings are via Zoom. Please check our website for any schedule changes. Prospective members can request an invitation by email to: [secretary@monroecountymcomm.org](mailto:secretary@monroecountymcomm.org).

Monroe County ARES/RACES meets on the air every Thursday of the month at 7:00 PM, on the N2MPE 146.61 MHz (-) 110.9 Hz PL and 444.45 MHz (+) 110.9 Hz PL repeaters. Our club callsign is WB2EOC.

There is no net on nights when we hold our regular meeting, generally on the 4th Thursday of the month.

WEB: [www.monroecountymcomm.org](http://www.monroecountymcomm.org)

Facebook : Monroe County Amateur Radio Emergency Service, Inc.

Twitter @MCARESNY

**Severe Weather Alerts:** Winter may bring severe weather in the form of heavy snow storms, strong winds, and flooding. If you experience severe weather, especially when accompanied by damage to property in your area, listen to your local ARES/RACES repeaters for information. While official ARES/RACES activation could be a possibility, it is more important that we open a spontaneous net simply to share information about weather conditions in your immediate area. Don't wait for someone else to do it. Pick up the microphone and start a net. Have each check-in station give you a situational awareness report and emergency power report. If you don't have a copy of the directed net protocol, you can find one at the WEB address listed above. (Activities/ARES Net/ Net Script/ Downloads). We encourage all amateur radio operators to take a free Skywarn TM class offered by the National Weather Service. The schedule of classes can be found at <https://www.weather.gov/buf/skywarn>

Monroe County ARES  
George Adams IV, Net Control - [cq@k4gwa.net](mailto:cq@k4gwa.net)

## ROCHESTER DX ASSOCIATION, RDXA

In Person Meeting - Tuesday February 15, 2022 at 7:00pm

The next meeting will be at Johnny's Irish Pub,  
1382 Culver Road.



NOTE: Earlier start time and new location.  
Plenty of free parking alongside and behind the pub.

Due to the recent mandate by the Governor - Johnny's now requires all patrons to be vaccinated. A credential check (excelsior pass, vax card, etc.) will be asked upon entry.

Please check our website at [RDXA.com](http://RDXA.com) for up to date information regarding meeting locations and requirements, if any.

All are welcome.

Check our web site: [www.rdxa.com](http://www.rdxa.com).

## ROCHESTER RADIO REPEATER ASSOCIATION

The Rochester Radio Repeater Association, RRRA will be having its regular meeting on February 18th at the Pittsford Town Hall's meeting room. Remember Monroe County now requires us to wear a mask for indoor events. Our new by-laws allow us to use any and all electronic means to communicate with our membership. Future meetings will be held on Zoom and in person or just zoom if our regular meeting place is not available. When announced, election of club officers will take place on our club web page.

Stay tuned to our web site, [www.k2rra.org](http://www.k2rra.org) for current information on any changes to our meeting place. The elected RRRA officers for 2020 - 2022 are, Bob Shewell, N2HJD, President, Bob ODell, N2BZX, Vice President, Ed Wilkon-ski, KC2WM Secretary, and Bob Smith, NS2B-Treasurer / Membership Chair-man. RRRA also accepts donations to the club. If you are not currently a member and want to support RRRA, you can join at our monthly meeting or on our web site using PayPal. [www.k2rra.org](http://www.k2rra.org)

## XXR AMATEUR RADIO CLUB

The XXR Amateur Radio Club is not having in-person meetings at this time. We are having online meetings usually on the second Thursday of the months Sept-June. Get the latest updates at <http://xarc.us>

## ROCHESTER VHF GROUP

**You are invited to join us on-line & on-the-air! We're here to help you to use the license that you worked so hard to get.**



**Check out what we do by visiting our website at <http://RVHFG.org> to start.**

**Join our e-mail group by sending a message to [RVHFG+subscribe@groups.io](mailto:RVHFG+subscribe@groups.io).**

**Join our weekly on-the-air nets on SSB:  
2 meter band - Monday 9 PM 144.260 USB  
6 meter band - Thursday 9 PM 50.200 USB**

**No VHF SSB radio (yet) to join the nets?  
Log-in to Echolink [ka2ene-L #23426](#)**

**We can help to answer the question, "What radio should I buy?" Here's a list of HF+++ radios, those with the HF bands and at least three VHF bands, giving you access to all sorts of VHF fun. Research each one to see which serves you best. Ask questions on our email list. We're here to help!**

Yaesu FT-100D	Yaesu FT-817	Yaesu FT-818
Yaesu FT-847	Yaesu FT-857	Yaesu FT-897
Icom IC-706MKIIG	Icom IC-7000	Icom IC-7100
Icom IC-9100	Kenwood TS-2000	

**Some are older models and some are newer models, but all provide access to the 6 meter, 2 meter, and 70 centimeter bands using both traditional FM and the exciting narrow-band SSB mode that supports unexpectedly long-distance (100's of km's routinely and 1,000's of km occasionally) VHF communication. These are good all-around radios no matter what club you end up affiliating with later. We hope its us.**

## AMATEUR RADIO ASSOCIATION OF THE SOUTHERN TIER, ARAST

Currently, ARAST meets the third Thursday of every month at the Emergency Communications Center on Harris Hill in Big Flats, next to the National Soaring Museum. Our Chemung County ARES (CCARES) organization meets the first Tuesday of the month except February at the same location. Both organizations serve amateurs in Chemung, Steuben and Schuyler counties in New York and Bradford and Tioga counties in Pennsylvania. All are welcome to attend our meetings.

NOTE: Both CCARES and ARAST monthly meetings are now being held both in person and online. Check out the Upcoming Events at our website, [www.arast.info](http://www.arast.info), for the latest details.

Don't forget to check out our repeaters when you visit the area. N3AQ 147.36(+) and the W2ZJ 146.70(-) are the principal 2-meter repeaters. The latter can also be accessed via Echolink node 574415 with the call sign KD2QND-R. A full list of repeaters that can be heard in the Twin Tiers area surrounding Chemung County can be found at [http://www.arast.info/arast\\_website/public/repeaters.php](http://www.arast.info/arast_website/public/repeaters.php).

We also invite you to check out our new 6 meter net on Wednesday evenings at 9 p.m. local time on 50.200 MHz USB. The net usually lasts approximately one hour. Operators are encouraged to check in and participate in the round table discussions or simply stop by from time to time. Topics are wide-reaching and are not confined to 6 meters--although discussions tend to center around 6-meter equipment, antennas, propagation, latest band openings and grid squares worked, as well as AM, FM and FT-8 use of the 6-meter band. We would welcome more participation from the western part of our area.

## COMMUNITY AMATEUR RADIO CLUB, CARC

If you are interested in being a part of this forward thinking and active club, visit us at a meeting or join us on one of our weekly nets. We meet at the Hoag Library (134 S. Main St. Albion, NY) on the first Saturday of each month at 7PM. Each meeting has a brief training/refresher period with upcoming topics including: net protocol, repeater set-up/maintenance, and digital signaling. The club holds a net every Sunday evening at 8pm (winter) and 9PM (summer) - 0100 UTC Monday - on 147.585 simplex, and we host the Thursday Night Social Net, Thursday at 8:30PM on 147.285+. We'd love to hear you check-in!

## DIGITAL COMMUNICATIONS ASSOCIATION OF PERINTON, DCAP

DCAP members continue to experiment with leading edge digital communication modes. We were formed in 1994 to foster the development of local and regional packet radio networks using AX25 and TCP/IP. Today we have members using the club sponsored DSTAR repeater (KB2VZS on 444.8MHz), several personal and publicly accessible DSTAR hotspots, Yaesu System Fusion systems on non-club repeaters and DMR systems through repeaters and personal hotspots. DCAP members meet for breakfast at 7AM nearly every Saturday morning at Rikki's Family Restaurant in the village of Fairport and everyone is welcome to join us. Talk in is on the KB2VZS analog repeater on 146.715MHz with a PL tone of 110.9Hz.

## DRUMLINS AMATEUR RADIO CLUB

The Drumlins Amateur Radio Club meets every third Wednesday of the month at 7:30 PM at the Wayne County EMO/Sheriff's Office 7376 State Hwy 31 #1000, Lyons, NY 14489. Doors open at 7 pm, meeting starts at 7:30 pm. Announcements will be made on the 146.685 repeater. The Drumlins ARC website address is <http://drumlinsarc.us/>

## KEUKA LAKE AMATEUR RADIO ASSOCIATION, KLARA

The Keuka Lake Amateur Radio Association is busy planning their Winter Field Days event. We will be at the Camp Bell Rest Area on 390 during the day to show the world what we are all about. Hopefully it won't be too cold but we will be prepared! Some will also be running from their home so listen for us and let's make contact!

We have a Round Table net every morning on HF radio on 3.896 with check in at 8:30 am and net starts at 8:45 am and lasts about an hour. You do not need to be a member of KLARA to participate! We want to hear from everyone!

We would love to have you join in, It is a fun group starting with introductions, weather and equipment using then onto a topic or two.

We have a 2meter net on the KLARA repeater system and echo link every Sunday evening at 8pm. We do check-ins, pass important information, equipment wanted or for sale and then we do trivia. You do not need to be a member to check in. Please join in as it's a great deal of fun.

## ORLEANS COUNTY AMATEUR RADIO CLUB

The Orleans County ARC meets every 2<sup>nd</sup> Monday of the month at the Orleans County Emergency Operations Center, 14064 West County House Road, Albion, NY 14411. Doors open at 6:00PM, meeting starts at 7:30PM. Anyone with an interest in amateur radio is welcome. Program topics vary from month to month.

The club has an open two meter net every Tuesday night at 9:00PM local time on the club repeater, WA2DQL/R (145.27 -600KHz offset, 141.3 tone). Everyone is welcome to check in.

See the club website <http://ocarc.us> or contact club Secretary Ron Craig, N5BNO for more information.

## THE AMATEUR'S CODE

Originally written by Paul M. Segal, W9EEA (1928)

### THE RADIO AMATEUR IS:

<b>CONSIDERATE</b>	Never knowingly operating in such a way as to lessen the pleasure of others.
<b>LOYAL</b>	Offering loyalty, encouragement and support to other amateurs, local club, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.
<b>PROGRESSIVE</b>	With knowledge abreast of science, a well built and efficient station and operation beyond reproach.
<b>FRIENDLY</b>	With slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.
<b>BALANCED</b>	Radio is an avocation, never interfering with duties owed to family, job, school or community.
<b>PATRIOTIC</b>	With station and skill always ready for service to country and community.



## SKENOH ISLAND AMATEUR RADIO CLUB, SIARC

The Skenoh Island Amateur Radio Club meets every second Wednesday of the month at 7:30PM at the Ontario County Safety Training Facility, 2914 County Road 48, Town of Hopewell. We have License Exam Testing every other month which begins at 6:30PM. The next meeting will be Wednesday, February 9th. There will be a presentation by KB2KBY on the ENIGMA machine. There will not be license exam testing. Masks and social distancing will be required even if vaccinated.

Check the SIARC website for updates. <http://www.siarc.us/>

SIARC is also holding a Health and Welfare NET Monday through Friday each week at 2000 hours on the SIARC 146.820 repeater (located in Canandaigua, NY), Tone 110.9. This net is to pass along general information and keep hams in touch. All hams are invited to participate.

## GENESEE VALLEY AMATEUR RADIO ASSOCIATION

Email [n3dsp@lafireline.net](mailto:n3dsp@lafireline.net) for details.

## INTERLOCK ROCHESTER - K2HAX - ROCHESTER'S HACKERSPACE

Visit our website at <http://www.interlockroc.org/>, contact us at [info@interlockroc.org](mailto:info@interlockroc.org), or find us in #interlock on Freenode IRC.

## ROCHESTER MAKERSPACE

For more information visit <https://www.makerspacerochester.org/hamradio>

## ASTRONOMY SECTION ROCHESTER ACADEMY OF SCIENCE

For more information visit <http://www.rocheasterastronomy.org/>

## RAG ARTICLE LAYOUT HINTS

- Orientation - Landscape
- Main Text Box H - 7.7, W - 10.4
- 2 columns, 0.3 spacing between columns
- Font: Arial
- Title: 20 pt, Bold, Small Caps
- Author: 10 pt, Bold, Small Caps
- Main Text: 10 pt
- Single space after periods
- Text Alignment: Justified
- Title & Author Alignment: Centered
- No special formatting
- Try to limit pictures to the width of a column
- Picture Format: jpg or png
- Document format: Microsoft Word compatible or text. No special embedded formatting.

# RARA OFFICERS, DIRECTORS AND COORDINATORS

## OFFICERS

<b>President:</b>		<a href="mailto:president@rochesterham.org">president@rochesterham.org</a>	<b>Treasurer:</b>		<a href="mailto:treasurer@rochesterham.org">treasurer@rochesterham.org</a>
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<b>Vice-President:</b>		<a href="mailto:vicepresident@rochesterham.org">vicepresident@rochesterham.org</a>	<b>Secretary:</b>		<a href="mailto:secretary@rochesterham.org">secretary@rochesterham.org</a>
Scott Theis, W2LW	(845) 774-9809		Karl Heinz Kremer, K5KHK	(585) 210-0840	

## DIRECTORS

Paul Conaway, KD2DO	(585) 506-5538	<a href="mailto:ConawayNY@aol.com">ConawayNY@aol.com</a>	Mike Kennerknecht, N2MAK	(585) 754-2444	<a href="mailto:makennerknecht@gmail.com">makennerknecht@gmail.com</a>
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## ACTIVITY COORDINATORS

<b>Club Historian</b>	Ed Gable, K2MP	<a href="mailto:egable@rochester.rr.com">egable@rochester.rr.com</a>	<b>Public Service</b>	Mike Moore, KC2NM	<a href="mailto:publicservice@rochesterham.org">publicservice@rochesterham.org</a>
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## ROCHESTER AREA RADIO CLUB CONTACTS

### Antique Wireless Association (AWA)

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### Amateur Radio Association of the Southern Tier (ARAST)

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### Astronomy Section Rochester Academy of Science

Mark Minarich: [mminaric@rochester.rr.com](mailto:mminaric@rochester.rr.com)

### Community Amateur Radio Club (CARC)

Joe Gangi, AC2NB: [ac2nb.carc@gmail.com](mailto:ac2nb.carc@gmail.com)

### Digital Communications Association of Perinton (DCAP)

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### Drumlins Amateur Radio Club Ltd. (DARC)

[drumlinsarc@gmail.com](mailto:drumlinsarc@gmail.com)

### Fisherman's Net Amateur Radio Club

Jim Sutton, N2OPS: [jim@otrym.org](mailto:jim@otrym.org)

### Genesee Valley Amateur Radio Assn.

Bill Boyd, N3DSP: [N3DSP@lafireline.net](mailto:N3DSP@lafireline.net)

### Keuka Lake Amateur Radio Association (KLARA)

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### Monroe County ARES / RACES

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### Orleans County Amateur Radio Club (OCARC)

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### Rochester Amateur Radio Association (RARA)

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### Rochester Radio Repeater Association (RRRA)

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### Squaw Island Amateur Radio Club (SIARC)

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### XRX Amateur Radio Club

Brian Donovan, K2AS: [k2as@outlook.com](mailto:k2as@outlook.com)

## MARCH RAG DEADLINE

## FEBRUARY 15, 2022

**RARA MEETS AT 7PM ON THE FIRST  
WEDNESDAY OF EACH MONTH.**

## JOIN US ONLINE AT:

<https://attendee.gotowebinar.com/register/3378871120874338059>

CONTACT [WEBMASTER@ROCHESTERHAM.ORG](mailto:WEBMASTER@ROCHESTERHAM.ORG) FOR SUPPORT

## Rochester Area Repeater Listing

## THE RARA RAG

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